

REMARKS

This Amendment is responsive to the Office Action dated April 27, 2004. Applicant has amended claim 1 and added claims 5-35. Claims 1-35 are pending.

Claim Rejection Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 1-4 under 35 U.S.C. 103(a) as being unpatentable over Kennedy et al. (U.S. Pat. No. 6,163,594) in view of Fraser (U.S. Pat. No. 5,835,580). Applicant respectfully traverses the rejections. The applied references fail to disclose or suggest the inventions defined by Applicant's claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

With reference to independent claim 1, as amended, the applied references lack any teaching that would have suggested a "method for correlating a subscriber unit to a physical port in a point to multipoint wire line network." More particularly, Kennedy et al. and Fraser clearly provide no teaching that would have suggested prompting an installer to manually input a location code associated with a subscriber, receiving the location code in the subscriber unit, transmitting the location code via the network to a central repository, and storing the location code in the central repository to associate the location code with the physical port, as set forth in amended claim 1.

Kennedy et al.

In contrast to the claimed invention, Kennedy et al. describes a system for performing a bit error rate test (BERT) on a communication circuit, such as an ISDN line with dual bearer ("B") channels. According to Kennedy et al., a technician (or "craftsman") uses a test unit to enter service profile identifiers (SPIDs) for the B channels of a line under test, which permits derivation of pertinent directory numbers. Then, the test unit calls itself by going off-hook on one of the B channels and dialing the directory number associated with the other B channel, and conducts the BERT.

A SPID merely serves as a unique identifier of a B channel on an established ISDN line. Notably, in the Kennedy et al. system, the public switched telephone network (PSTN) already possesses sufficient location information. Indeed, it is well known in the art that the ISDN

provider actually preassigns the SPIDs to the ISDN line. This is evidenced, for example, by the simple fact that the technician in the Kennedy et al. system is able to make a telephone call over the communication circuit without specifying any further information to the PSTN other than an already established directory number.

To aid the Examiner's understanding, however, Applicant provides the following additional background information, which is well known to those skilled in the art. In an ISDN system, such as the system described by Kennedy et al., a SPID is not a location identifier, but rather a circuit provisioning verification. The SPID serves as a means for a logical entity, such as a phone on the ISDN line, to identify itself in a multidrop environment. In other words, a SPID is used for a phone to identify itself to the switch. Consequently, as mentioned above, the SPID is preassigned to the ISDN line described in Kennedy et al. This is fundamentally different than the method of claim 1, which instead requires manual input and transmission of a location code associated with a subscriber.

To further elaborate, in an ISDN system, two SPIDs are provisioned at the phone switch end of a circuit, one for each B channel. This creates two logical point-to-point connections over a single physical circuit. The SPID provides three pieces of information about the provisioned circuit: the service protocol to be used, the bearer service (voice or data), and the call routing destination number of the B channel (phone number). Notably, the SPID does not convey an indication of location.

Both ends of the circuit must use the parameters provided by the SPID to successfully establish a connection. The SPID is entered on the customer premises equipment (CPE) device, such as a phone or test equipment, to gain access to the circuit, as outlined in Kennedy, because the ISDN requires verification of the SPID by the switch before circuit activation. This assures that both ends of the circuit can successfully establish a connection. If the SPID entered at the CPE device does not match the SPID provisioned at the switch, an invalid SPID error would be generated and the circuit would not be activated.

Since the SPID is used for a phone to identify itself to a switch, it means that the SPID has been preassigned to the ISDN line. This is directly contrary to the manual input and transmission of a location code, as set forth in claim 1. Again, a SPID is a preassigned number that simply bears no relationship to location associated with a subscriber.

In view of the foregoing discussion, it should be clear that none of the information transmitted in the Kennedy et al. system relates to transmission of a location code associated with a subscriber, as required by Applicant's claims 1-4. Instead, the SPID of Kennedy et al. is associated with the ISDN line. Moreover, since the PSTN in the Kennedy et al. system already has sufficient information correlating to a directory number, there is simply no logical purpose in "storing a transmitted location code in the central repository to associate the location code with the physical port." Indeed, the Examiner acknowledged that Kennedy et al. lacks such teachings.

Fraser

In view of the fundamental shortcomings evident in the Kennedy et al. reference, the Examiner cited Fraser as teaching "a method and apparatus for automated provisioning and billing of communication services wherein an account is maintained by the telecommunication carrier for a specific piece of telecommunication equipment." The Examiner further noted that Fraser describes establishment of an account "by forwarding to the telecommunication carrier a service request including information that uniquely identifies the telecommunication equipment," and allowing portability of a customer's network interface.

On this basis, the Examiner concluded that it would have been obvious to modify the Kennedy et al. system in view of Fraser to use a unique identifier "for the benefit of monitoring and tracking network interfaces" and "enabling databases to be automatically updated when a network interface is moved and re-connected to another network node." Applicant respectfully submits that the Examiner's conclusion of obviousness is improper for several reasons.

First, Fraser fails to provide any teaching that would have guided one of ordinary skill in the art to modify the Kennedy et al. system to arrive at the claimed invention. In his analysis, the Examiner focused on Fraser's use of information that uniquely identifies a piece of telecommunication equipment. Notably, an installer does not manually input this information, as required by claim 1. Moreover, this information described by Fraser has nothing to do with location, much less a location code associated with a subscriber in a point-to-multipoint network. On the contrary, the identification information used by Fraser identifies a piece of equipment, without regard to where the equipment is located within the network. Indeed, this appears to be the basic point of the Fraser disclosure, i.e., an account can be established with the equipment

without regard to its location. Accordingly, it seems that Fraser is directly at odds with the claimed invention, which requires transmission of a location code associated with a subscriber.

Second, one of ordinary skill in the art would have found no motivation to modify the Kennedy et al. system according to the teachings of Fraser. For example, notwithstanding the failure of Fraser as a sufficient teaching, it is unclear why one of ordinary skill in the art would have considered Fraser as the basis for modification of the Kennedy et al. system in the first place. In particular, Kennedy et al. relates to BERT testing for fixed ISDN lines. In contrast, Fraser is directed to account management for portable telecommunication equipment. It is unclear how the teachings of Fraser would have been useful in the Kennedy et al. system. Notably, if the Kennedy et al. system were modified to make use of portable telecommunication equipment as taught by Fraser, it is unclear how a technician would then have immediate knowledge of the SPIDs for the line connected to the equipment for purposes of BERT testing, without consulting the ISDN provider. Accordingly, it seems that the Fraser teachings would actually undermine the operation of the testing techniques described by Kennedy et al.

Third, even if the Kennedy et al. system were somehow modified in view of Fraser, the resulting system would not conform to the requirements of claims 1-4. Again, modification of the Kennedy et al. system according to Fraser would seem to involve the use of portable telecommunication equipment with unique identifiers, but would have no feature relating to the transmission of a location code associated with a subscriber, nor storage of such a location code in the central repository for association of the location code with a physical port.

For at least these reasons, the Kennedy et al. and Fraser references fail to establish a prima facie case of obviousness with respect to claims 1-4. Therefore, Applicant respectfully requests withdrawal of the rejection under section 103.

Dependent claims 2-4 recite additional limitations that are similarly lacking in the applied references. With respect to claim 2, for example, neither Kennedy et al. nor Fraser suggests checking a location code for errors before storing, upon finding an error, transmitting an instruction to the subscriber unit to indicate error to the installer, and upon finding no errors, storing the location code. The references also fail to disclose or suggest prompting the installer to reinput the location code, as set forth in claim 3. Finally, with respect to claim 4, the

references clearly do not teach the transmission and storage of both a location code associated with a subscriber and a site code.

New Claims

Applicant has added claims 5-35 to the pending application. The applied references fail to disclose or suggest the inventions defined by Applicant's new claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed inventions.

CONCLUSION

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

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